

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A method of assembling a laminated electro-mechanical structure, comprising:

(a) stacking a plurality of planar structural layers to form a stack, wherein the plurality of planar structural layers has a first planar structural layer having a movable element formed therein; and

(b) attaching each planar structural layer of the stack to an adjacent planar structural layer of the stack.

2. (Currently Amended) The method of claim 1, wherein step (a) comprises: aligning the planar structural layers in the stack.

3. (Currently Amended) The method of claim 1, wherein said stacking step comprises:

positioning a further planar structural layer having a permanent magnet in the stack.

4. (Currently Amended) The method of claim 1, wherein said stacking step comprises:

positioning a further planar structural layer having a high permeability magnetic material in the stack.

5. (Currently Amended) The method of claim 1, wherein said stacking step comprises:

positioning a further planar structural layer having at least a portion of an electromagnet in the stack.

6. (Currently Amended) The method of claim 1, wherein said stacking step comprises:

positioning in the stack a further planar structural layer having at least one electrical contact area formed thereon.

7. (Currently Amended) The method of claim 1, wherein said stacking step comprises:

positioning the first planar structural layer having the movable element in the stack.

8. (Currently Amended) The method of claim 7, wherein said stacking step further comprises:

positioning in the stack a second planar structural layer having an opening therethrough to form a cavity.

9. (Currently Amended) The method of claim 8, wherein said second planar structural layer positioning step comprises:

positioning the second planar structural layer in the stack adjacent to the first planar structural layer such that the movable element moves in the cavity during operation of the movable element.

10. (Currently Amended) The method of claim 1, wherein said forming step comprises:

forming the movable element in the first planar structural layer so that the movable element is capable of moving in a plane that is coplanar with the first planar structural layer.

11. (Currently Amended) The method of claim 1, wherein said forming step comprises:

forming the movable element in the first planar structural layer so that the movable element is capable of moving outside of a plane that is coplanar with the first planar structural layer.

12. (Currently Amended) The method of claim 1, wherein step (b) comprises:

prior to step (a), applying an adhesive material to at least one opposing surface of each pair of adjacent planar structural layers of the stack.

13. (Currently Amended) The method of claim 12, wherein the adhesive material is an epoxy, wherein said applying step comprises:

applying the epoxy to the at least one opposing surface of each pair of adjacent planar structural layers of the stack.

14. (Currently Amended) The method of claim 13, wherein step (b) further comprises:

after step (a), curing the epoxy applied to the at least one opposing surface of each pair of adjacent planar structural layers of the stack.

15. (Original) The method of claim 14, wherein said curing step comprises:

heating the stack to cure the epoxy.

16. (Currently Amended) The method of claim 1, further comprising the step of:

(c) prior to step (a), forming the plurality of planar structural layers.

17. (Currently Amended) The method of claim 16, wherein step (c) comprises:

forming a planar structural layer that includes a permanent magnet.

18. (Currently Amended) The method of claim 16, wherein step (c) comprises:
forming a planar structural layer that includes a high permeability magnetic material.
19. (Currently Amended) The method of claim 16, wherein step (c) comprises:
forming a planar structural layer that includes at least a portion of an electromagnet.
20. (Currently Amended) The method of claim 16, wherein step (c) comprises:
forming at least one electrical contact area on a surface of a planar structural layer.
21. (Currently Amended) The method of claim 16, wherein step (c) comprises:
forming a planar structural layer having an opening therethrough.
22. (Currently Amended) The method of claim 16, wherein step (c) comprises:
forming the first planar structural layer having the movable element.
23. (Currently Amended) The method of claim 22, wherein said step of forming the first planar structural layer comprises:
forming the movable element in the first planar structural layer; and
forming at least one flexure portion in the first planar structural layer that is mechanically coupled to the movable element.
24. (Currently Amended) The method of claim 22, wherein said step of forming the first planar structural layer comprises:
forming at least one contact area in the first planar structural layer that is electrically coupled to the movable element.

25. (Currently Amended) The method of claim 16, wherein the laminated electro-mechanical structure includes a latching switch, wherein step (c) comprises:

forming at least one electronic component on a surface of a planar structural layer of the plurality of planar structural layers; and
electrically coupling the at least one electronic component to the latching switch.

26. (Currently Amended) The method of claim 25, wherein the at least one electrical component includes at least one of an inductor, a capacitor, and a resistor, wherein said electronic component forming step includes:

forming the at least one of an inductor, a capacitor, and a resistor on the surface of the planar structural layer of the plurality of planar structural layers.

27. (Currently Amended) The method of claim 16, wherein the laminated electro-mechanical structure includes a latching switch, wherein step (c) comprises:

forming an antenna pattern on a surface of a planar structural layer of the plurality of planar structural layers; and
electrically coupling the antenna pattern to the latching switch.

28-64 (Cancelled)